Broemmelsiek teaches viewing a display device from multiple angles and changing the position at which objects are viewed "so as to simulate an interactive, three-dimensional viewing environment" (abstract lines 4 to 6). The purpose of the invention in Broemmelsiek is to provide "a viewer with a relative view or parallax perspective of the displayed objects" (col. 1 lines 20-22) in common desk top computer display devices (col. 6 lines 10-13). Multiple objects are displayed and their positions relative to one another will change (col. 6 lines 10-13) so as to produce the parallax effect. The apparent movement of the objects in regards to their changing position on a display shows the objects moving with respect to some fixed point outside of the object itself either each object moving individually, a front object being fixed or a rear-most object being fixed (col. 7 line 59 to col. 8 line 7). In this manner Broemmelsiek shows objects shifting position relative to one another (col. 7 line 59 to col. 8 line 7).

Goldberg et al. teaches viewing multiple 2-dimensional images including a root image with changes in "a designated viewing position, as if the root image were a three-dimensional object" (abstract; col. 5 lines 39-48). The root image object is used "for video information" (col. 1 lines 4-5). As the multiple images or frames are seen as a single object further away images in the object remain "partially occluded by the frames in front" as "each individual frame is represented by a plane and the planes lie one behind the other" (col. 3 line 66 to col. 4 line 7). Thus, the 3-dimensional root image object composed of multiple frames is simply displayed "from different perspectives" (col. 5 lines 18-37).

The Examiner stated that "the motivation [for combining Broemmelsiek and Goldberg et al.] would have been to provide the motion of an object, view angle change between the object and viewer, and various other effects."

Applicant submits that with the proposed restriction, the teachings of Broemmelsiek in combination with Goldberg et al. would not have been obvious to one skilled in the art as the fields of the inventions to which Broemmelsiek and Goldberg et al. pertain are nonanalogous. The problem to which Broemmelsiek is directed is that of "providing a viewer with a relative view or parallax perspective of the displayed objects" (col. 1 lines 20-22) "so as to simulate an interactive, three-dimensional viewing environment" (abstract lines 4-6). The reference in Broemmelsiek cited in respect of the above referenced motivation for combination (col. 19 line 65 to col. 20 line 9) describes an embodiment in which one of the multiple windows on a screen may also include an "object [is] animated by cycling through images" (col. 20 lines 5-9). That is, Broemmelsiek pertains to providing a parallax effect and in one of the windows effected by the parallax effect, animation of images. Goldberg et al. on the other hand is directed towards the formation and display of a "root image consist[ing] of a plurality of basic frames selected from the video information" (abstract lines 2-4) wherein the "display view of the root image changes in accordance with a designated viewing position, as if the root image were a three-dimensional object" (abstract lines 9-11). That is, Goldberg et al. pertains to displaying an object formed of multiple images from different angles and view points. As Broemmelsiek and Goldberg et al. are relevant to different fields and focus on different problems (parallax display of multiple objects and formation and display of a

single three-dimensional object, respectively), Applicant submits that the combination of these two references is not justified according to the disclosure set forth in each of the reference patents. Applicant respectfully requests that the rejection of claims 1 and substantially corresponding claim 25 (computer readable medium) and claims 2 to 9 depending on claim 1 be withdrawn.

Further, the combination of Goldberg et al. into Broemmelsiek would not provide for the fulfillment of the purpose of either Goldberg et al. or Broemmelsiek. Since the purpose of Broemmelsiek is that of "providing a viewer with a relative view or parallax perspective of the displayed objects" (col. 1 lines 20-22) "so as to simulate an interactive, three-dimensional viewing environment" (abstract lines 4-6), the incorporation of Goldberg et al. would not enhance the achievement of this function. Further, as Goldberg et al. pertains to the formation and display of a "root image consist[ing] of a plurality of basic frames selected from the video information" (abstract lines 2-4) wherein the "display view of the root image changes in accordance with a designated viewing position, as if the root image were a three-dimensional object" (abstract lines 9-11), the use of Goldberg et al. in Broemmelsiek would not contribute to the achievement of the purpose in Goldberg et al. as Broemmelsiek is concerned with relative position of objects to each other.

The Examiner states that "Broemmelsiek discloses that the claimed feature of a method of displaying a series of images according to a user's position relative to a display screen..." However, Broemmelsiek does not disclose a method of displaying a series of images according to a user's position. Broemmelsiek discloses a method of displaying

multiple *objects* according to a user's position to produce a parallax effect (col. 1 lines·20-22). These objects may be related only in that they are shown on a same display.

The Examiner states that Broemmelsiek with Goldberg et al. discloses "displaying a first image from the series of images." The Examiner further states that Goldberg et al discloses "a series of images with the user can manipulate the displayed image by designating different viewing positions." The motivation for combining these references would have been "to provide the motion of an object, view angle change between the object and the view and various other effects."

The incorporation of Goldberg et al. into the teachings of Broemmelsiek would not achieve the proposed object of the motivation of providing "the motion of an object, view angle change between the object and the view and various other effects." The discussion in Broemmelsiek in regards to changing images pertains to animation (col. 20 lines 5-9). However, Goldberg et al. teaches an object of multiple images that are displayed together as a three-dimensional object (abstract). Broemmelsiek teaches changing a position of an object on a display device in relation to positions of other objects being displayed. However, Broemmelsiek does not teach or suggest the manipulation to an object that would be required to change the view point of the object itself. Applicant respectfully submits that the combination of Broemmelsiek and Goldberg et al. would not "provide the motion of an object, view angle change between the object and the view and various other effects" as suggested by the Examiner. Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 1 be withdrawn on the aforementioned grounds.

In regards to the rejection of claim 2, Broemmelsiek does not disclose a series of two-dimensional images but rather a number of two-dimensional objects or windows (col. 1 lines 13- 16). The addition of Goldberg et al. does not overcome this deficiency as Goldberg et al. discloses a three-dimensional object composed of two-dimensional images, not a series of two-dimensional images. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 2 be withdrawn.

Claim 3 depends on claim 1. Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 3 be withdrawn for the aforementioned reasons for the same request for claim 1.

In regards to the rejection of claim 4, Broemmelsiek does not disclose the use of up tilt and down tilt for a user to change the relative position of displayed objects. In Broemmelsiek it is the position of an object/window on a display device that changes with the user's position. The objects/windows displayed in Broemmelsiek are not a function of the user's position. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 4 be withdrawn.

In regards to the rejection of claim 5, in opposition to the Examiner's opinion Broemmelsiek does not explicitly show that "the right translation and left translation produce a continuous rotation of images in the series of images." Accordingly, Applicant respectfully

requests that with the proposed restriction of claim 1, the rejection of claim 5 be withdrawn.

In regards to the rejection of claim 6, in opposition to the Examiner's opinion Broemmelsiek does not disclose "that the second image is the first image displayed with new display characteristics." Broemmelsiek shows in Figs. 2 and 7 two distinct objects that have not been given any relationship to each other. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 6 be withdrawn.

Claim 7 depends on claim 6. Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 7 be withdrawn for the aforementioned reasons for claim 6.

In regards to the rejection of claim 8, in opposition to the Examiner's opinion Broemmelsiek does not disclose that "the first image is a center image of the series of images." Since, as stated by the Examiner, Broemmelsiek does not disclose "a first image from the series of images" then Broemmelsiek cannot further define a position for the illusory first image. The series of images in the three-dimensional object in Goldberg et al. are ordered in time along the z-axis (abstract) and as such a first image in time cannot appear at any other point than the front or back of the object. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 8 be withdrawn.

In regards to the reject of claim 9, in opposition to the Examiner's opinion Broemmelsiek does not disclose "that if the second image is not

available to be displayed then an available image in the series of images closest to the second image is displayed" as Broemmelsiek does not disclose displaying an ordered set of images. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 9 be withdrawn.

Claim 25 is a corresponding computer readable medium claim of claim 1. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 1, the rejection of claim 25 be withdrawn on the basis of such aforementioned requests made in regards to claim 1.

Claims 10-21 and 26 have been rejected for being unpatentable over U.S. 5,574,836 (Broemmelsiek) in view of U.S. 5,963,203 (Goldberg et al.) and further in view of U.S. 6,208,349 (Davidson et al.).

Broemmelsiek teaches viewing a display device from multiple angles and changing the position at which objects are viewed "so as to simulate an interactive, three-dimensional viewing environment" (abstract lines 4 to 6). The purpose of the invention in Broemmelsiek is to provide "a viewer with a relative view or parallax perspective of the displayed objects" (col. 1 lines 20-22) in common desk top computer display devices (col. 6 lines 10-13). Multiple objects are displayed and their positions relative to one another will change (col. 6 lines 10-13) so as to produce the parallax effect. The apparent movement of the objects in regards to their changing position on a display shows the objects moving with respect to some fixed point outside of the object itself either each object moving individually, a front object being fixed or a rear-most object being fixed (col. 7 line 59 to col. 8 line

7). In this manner Broemmelsiek shows objects shifting position relative to one another (col. 7 line 59 to col. 8 line 7).

Goldberg et al. teaches viewing multiple 2-dimensional images including a root image with changes in "a designated viewing position, as if the root image were a three-dimensional object" (abstract; col. 5 lines 39-48). The root image object is used "for video information" (col. 1 lines 4-5). As the multiple images or frames are seen as a single object further away images in the object remain "partially occluded by the frames in front" as "each individual frame is represented by a plane and the planes lie one behind the other" (col. 3 line 66 to col. 4 line 7). Thus, the 3-dimensional root image object composed of multiple frames is simply displayed "from different perspectives" (col. 5 lines 18-37).

Davidson et al. teaches a "multidimensional controller adapted for use with multidimensional information" (col. 2 lines 17-19). The controller in Davidson et al. is for manipulation and control within a multidimensional space (col. 2 lines 20-31) such that a base viewing orientation and a relative viewing orientation are combined "to determine a desired viewing orientation" (col. 2 lines 24-25). That is, the information for display is already multidimensional and Davidson et al. provides a device for easier interaction with the multidimensional information. The control of manipulation in Davidson et al. is for information displayed in a multidimensional viewing display (col. 4 lines 34-52).

The Examiner stated that "the motivation [for combining Broemmelsiek and Goldberg et al.] would have been to provide the motion of an

object, view angle change between the object and viewer, and various other effects." The Examiner further stated that "the motivation [for combining Broemmelsiek and Davidson et al.] would have been to provide efficient way of a simulated interactive based on the positions of viewer."

Applicant submits that the teachings of Broemmelsiek in combination with Goldberg et al. and further in combination with Davidson et al. would not have been obvious to one skilled in the art as the fields of the inventions to which Broemmelsiek, Goldberg et al., and Davidson et al. pertain are nonanalogous. The problem to which Broemmelsiek is directed is that of "providing a viewer with a relative view or parallax perspective of the displayed objects" (col. 1 lines 20-22) "so as to simulate an interactive, three-dimensional viewing environment" (abstract lines 4 to 6). The reference in Broemmelsiek cited in respect of the above referenced motivation for combination (col. 19 line 65 to col. 20 line 9) describes an embodiment in which one of the multiple windows on a screen may also include an "object [is] animated by cycling through images" (col. 20 lines 5-9). That is, Broemmelsiek pertains to providing a parallax effect and in one of the windows effected by the parallax effect, animation of images. Goldberg et al. on the other hand is directed towards the formation and display of a "root image consist[ing] of a plurality of basic frames selected from the video information" (abstract lines 2-4) wherein the "display view of the root image changes in accordance with a designated viewing position, as if the root image were a three-dimensional object" (abstract lines 9-11). That is, Goldberg et al. pertains to displaying an object formed of multiple images from different angles and view points. Davidson is directed towards a "multidimensional controller

adapted for use with multidimensional information" (col. 2 lines 17-19). That is, Davidson et al. pertains to displaying multidimensional information on a multidimensional display with a multidimensional controller. As Broemmelsiek, Goldberg et al., and Davidson et al. are relevant to different fields and focus on different problems (parallax display of multiple objects; formation and display of a single three-dimensional object; and control and display of multidimensional information, respectively), Applicant submits that the combination of these three references is not justified according to the disclosure set forth in each of the reference patents. Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 10 and substantially corresponding claim 26 (computer readable medium) and claims 11 to 21 depending on claim 1 be withdrawn.

Further, the combination of Davidson et al. and Goldberg et al. into Broemmelsiek would not provide for the fulfillment of the purpose of either Davidson et al., Goldberg et al. or Broemmelsiek. Since the purpose of Broemmelsiek is that of "providing a viewer with a relative view or parallax perspective of the displayed objects (col. 1 lines 20-22) "so as to simulate interactive, three-dimensional viewing environment" (abstract lines 4-6), the incorporation of Goldberg et al. and Davidson et al. would not enhance the achievement of this function. Further, as Goldberg et al. pertains to the formation and display of a "root image consist[ing] of a plurality of basic frames selected from the video information} (abstract lines 2-4) wherein the "display view of the root images changes in accordance with a designated viewing position, as if the root image were a three-dimensional object" (abstract lines 9-11), the use of Goldberg et al. in Broemmelsiek would not contribute to the achievement of the purpose in Goldberg et al. as

Broemmelsiek is concerned with relative position of objects to each

other. Additionally, as Davidson et al. is directed to manipulation

and control of multidimensional information within a multidimensional

space (col. 2 lines 20-31), the use of Davidson et al. in Broemmelsiek

would not contribute to the purpose of Davidson et al. as Broemmelsiek

is concerned with "simulat[ing] an interactive, three-dimensional

viewing environment" using two-dimensional information. The further

citation of Broemmelsiek with Goldberg et al. and Davidson et al. is

not justified as the purpose of both Broemmelsiek and Goldberg et al.

is to display information on a standard display whereas Davidson et al.

provides a special display (Figure 3).

The Examiner states that Broemmelsiek "discloses the claimed feature of

a method of simultaneously receiving, displaying and interacting with a

series of images in response to movement of an interactive device..."

Broemmelsiek does not disclose a method of simultaneously receiving,

displaying and interacting with a series of images in response to

movement of an interactive device. The method in Broemmelsiek does not

contemplate receiving images. Broemmelsiek discloses a method of

displaying multiple objects according to a user's position to produce a

parallax effect (col. 1 lines 20-22). These objects may be related

only in that they are shown on a same display. There is no suggestion

that Broemmelsiek is attempting to simultaneously receive, display and

interact with series of images in order to produce a parallax effect

among the different images of the series.

The Examiner states that Broemmelsiek with Goldberg et al. discloses

"receiving for display a first image from the series of images." The

Examiner further states that Goldberg et al. discloses "a series of images with the user can manipulate the displayed image by designating different viewing positions." The motivation for combining these teaching "would have been to provide the motion of an object, view angle change between the object and viewer, and various other effects."

The incorporation of Goldberg et al. into the teachings of Broemmelsiek would not achieve the proposed object of the motivation of providing "the motion of an object, view angle change between the object and viewer, and various other effects." The discussions in Broemmelsiek cited as pertaining to receiving, viewing and interacting with image in the abstract, Fig. 2, col. 3 line 60- col. 4 line 49, col. 19 line 65- col. 20 line 9 and col 20 line 42+ do not teach receiving of images or objects that are to be displayed. Further discussion in col. 7 line 13-col.9 line 20 of Broemmelsiek does not disclose receiving images for display but rather displaying previously hidden portions of objects that are already displayed (col. 8 line 11-32). Goldberg et al. teach an object of multiple images which are display *together* as a three-dimensional object (abstract). Broemmelsiek teaches changing a position of an object on a display device in relation to positions of other objects being displayed. However, Broemmelsiek does not teach or suggest the manipulation to an object that would be required to change the view point of the object itself or receive the object and break it up into the individual images to be displayed. Applicant respectfully submits that the combination of Broemmelsiek and Goldberg et al. would not "provide the motion of an object, view angle change between the object and the view and various other effects" as suggested by the Examiner.

The Examiner states that Broemmelsiek with Goldberg et al. and further with Davidson et al. discloses "simultaneously receiving, displaying and interacting with a series of images in response to movement of an interactive device…" The motivation for combining Broemmelsiek with Davidson et al. "would have been to provide efficient way of a simulated interactive based on the positions of the viewer."

The incorporation of Davidson et al. into the teachings of Broemmelsiek would not achieve the proposed object of the motivation of providing "efficient way of a simulated interactive based on the positions of viewer." As previously mentioned, Broemmelsiek does not disclose receiving images for display but rather displaying previously hidden portion of objects that are already displayed (col. 8 line 11-32). Broemmelsiek is concerned with "simulat[ing] an interactive, three-dimensional viewing environment" using two-dimensional information. Davidson et al. is directed to manipulation and control of multidimensional information within a multidimensional space (col. 2 lines 20-31). The information displayed in Broemmelsiek is displayed in two-dimensions and interacted with in three-dimensions so as to simulate display in three-dimensions. Davidson et al. on the other hand provide a controller for interacting with multidimensional information displayed on a multidimensional display. Applicant respectfully submits that the combination of Broemmelsiek and Davidson et al. would not "provide efficient way of simulated interactive based on the positions of the viewer."

Accordingly, Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 10 be withdrawn on the aforementioned grounds.

In regards to the rejection of claim 11, in opposition to the Examiner's opinion Broemmelsiek does not disclose a series of two-dimensional images but rather a number of two-dimensional objects or windows (col. 1 lines 13- 16). The addition of Goldberg et al. does not overcome this deficiency as Goldberg et al. discloses a three-dimensional object composed of two-dimensional images, not a series of two-dimensional images. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 11 be withdrawn.

In regards to the rejection of claim 12, in opposition to the Examiner's opinion Broemmelsiek does not disclose the signals from the interactive device representing movement of the interactive device. The discussions in Broemmelsiek cited as pertaining to signals representing movement of the interactive device in Fig. 2, Fig. 7, col. 3 lines 16-18; in Goldberg et al. in Fig. 4, Fig, 5; and in Davidson et al. in col. 2 lines 16-36, col. 3 line 59-col. 4 line 34 and col. 5 lines 19-30 do not teach signals representing movement of the interactive device. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 12 be withdrawn.

In regards to the rejection of claim 13, Broemmelsiek does not disclose "displaying a second image in response to movement of the interactive device." In Broemmelsiek it is the position of an object/window on a display device that changes. The objects/windows displayed in Broemmelsiek are not a function of input related to changing user's position. Neither Goldberg et al. nor Davidson et al. provide for

displaying a second image from a series. Accordingly, Applicant
respectfully requests that with the proposed restriction of claim 10,
the rejection of claim 13 be withdrawn.

In regards to the rejection of claim 14, Broemmelsiek does not disclose
that "the second image is an image from the series of images determined
by the movement of the interactive device where movement is selected
from the group consisting of left movement, right movement, forward
movement and backward movement." In Broemmelsiek it is the position of
an object/window on a display device that changes. The objects/windows
displayed in Broemmelsiek are not a function of input related to
changing user's position. Neither Goldberg et al. nor Davidson et al.
provide for displaying a second image from a series as determined by
specified movements of the interactive device. Accordingly, Applicant
respectfully requests that with the proposed restriction of claim 10,
the rejection of claim 14 be withdrawn.

In regards to the rejection of claim 15, in opposition to the
Examiner's opinion Broemmelsiek does not explicitly show that "the
right translation and left translation produce a continuous rotation of
images in the series of images." Accordingly, Applicant respectfully
requests that with the proposed restriction of claim 10, the rejection
of claim 15 be withdrawn.

Claims 16, 17 and 18 depend on claims 10. Applicant respectfully
requests that with the proposed restriction of claim 10, the rejection
of claims 16, 17 and 18 be withdrawn for the aforementioned reasons for
the same request for claim 10.

Claim 19 depends on claim 18. Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 19 be withdrawn for the aforementioned reasons for the same request for claim 18.

In regards to the rejection of claim 20, in opposition to the Examiner's opinion Broemmelsiek does not disclose that "the first image is a center image of the series of images." Since, as stated by the Examiner, Broemmelsiek does not disclose "a first image from the series of images" then Broemmelsiek cannot further define a position for the illusory first image. The series of images in the three-dimensional object in Goldberg et al. are ordered in time along the z-axis (abstract) and as such a first image in time cannot appear at any other point than the front or back of the object. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 20 be withdrawn.

In regards to the reject of claim 21, in opposition to the Examiner's opinion Broemmelsiek does not disclose "that if the second image is not available to be displayed then an available image in the series of images closest to the second image is displayed" as Broemmelsiek does not disclose displaying an ordered set of images. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 21 be withdrawn.

Claim 26 is a corresponding computer readable medium claim of claim 10. Accordingly, Applicant respectfully requests that with the proposed restriction of claim 10, the rejection of claim 26 be withdrawn on the basis of such aforementioned requests made in regards to claim 10.

Applicant respectfully requests that the rejection of claims 1-21, 25 and 26 be withdrawn and claims 1-21, 25 and 26 be allowed as restricted.

Applicant respectfully submits that the present application is in condition for allowance and requests that a timely Notice of Allowance be issued in this case.